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Financial Change and Performance of Cooperative Credit Unions in Rural Communities of South East, Nigeria

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Abstract
This study examined the effect of financial change on the performance of Cooperative Credit Unions (CCUs) in Rural Communities of South East, Nigeria. The study was anchored on the organisational size and structuralist perspective theory propounded by Kimberly (1976). The study employed a survey research design, the population comprised 9209 management committee and members of CCUs. Krejcie and Morgan's 1970 sample size determination formula were employed to ascertain a sample size of 524 participants. The data for the research were sourced through the primary source, and the form of the primary source used was a Likert-structured questionnaire. The study deployed a direct collection method through face-to-face means. The validity of the questionnaire was determined using face and content validity, while the reliability was ascertained using Cronbach's Alpha coefficient (0.848). The data collected were analysed using a combination of descriptive and inferential statistics, and hypotheses tested at a 5% level of significance. The findings from the study showed that financial deepening has a statistically significant effect on ROE ($R = .968$; R-Square = .936; F statistics = 6569.276; $t = 81.051$; p-value $< .000$); that financial service quality is positively and statistically related to employee size ($R = .981$; R-Square = .963; F statistics = 11629.339; $t = 107.839$; p-value $< .000$) and that financial literacy positively and statistically affects members' satisfaction ($R = .975$; R-Square = .951; F statistics = 8758.118; $t = 93.585$; p-value $< .000$). The study, therefore, concluded that financial change has a statistically significant effect on performance of CCUs in rural communities of South East. Sequel to this, among others, it was recommended that rural CCUs need to implement and refine financial deepening strategies, including optimising liquidity management and diversifying investment options. The study contributes to the model needed to maintain the balance between democracy and organisational efficiency of CCUs practices.
Keywords: *Financial Change, financial deepening, financial service quality, financial literacy, Performance, Cooperative Credit Unions, Rural Communities, South East.*

INTRODUCTION

The economic crisis in the fast-changing environment of the 21st century has afforded organisations, regardless of type, the opportunity to transition from mere transaction recording to business partnership. Organisations have experienced a tremendous transition due to financial change, fundamentally altering the utilisation of productive resources and impacting the economy. This requires a more intensive and insightful understanding of the organisation's operational issues (Murinde et al, 2022; Nolop, 2012; Kaplan & Norton, 2006). Organisation finance has to move beyond the effectiveness and efficiency of processing and recording transactions to how well it is embedded into the lines of business, usage, quality of services, and improvements in financial knowledge among stakeholders (Shamsuddin et al, 2018; Morris et al, 2009). The financial change into becoming a business is as much about achieving an alignment with the lines of business and reducing costs (Moodley & Bayat, 2017).

Financial change refers to the development and adoption of new financial products, services, technologies or processes that improve or transform the way financial transactions and services are conducted. It also describes the journey which an organisation undertakes, including cooperatives as it evolves into becoming a trusted business partner since most organizations are fraught with the complexity of balancing transactional optimisation with an increasing span of strategic influence (Monday et al, 2024; Adil et al, 2020, Moodley & Bayat, 2017). Financial change is necessary for organisations as a powerful strategic tool to drive competition and to serve as an effective means for enterprises to enhance performance while maintaining effectiveness in the market (Lottu et al, 2023; Zuetal, 2019).

Researchers confirm that financial change (personal or organisation) significantly enhances overall financial performance and health as evidenced by increased profitability, reduced operation costs, lowered financial risks and improved financial knowledge and skills (Chen & Zhang, 2024; Ugwu et al, 2022). Performance is defined as outcomes, end results, and achievements, which can be negative or positive, arising from the activities undertaken by a group (Juma & Maseko, 2022). Cooperatives must be stable in their financial performance for long-term survival and need to be compelling in their financial and operating performance (Onah et al, 2024; Mehmet et al, 2015; Qiong, 2014)

Evaluation of the performance of Cooperative Credit Union (CCU) which is the core concern of the study because of induced financial changes becomes important since its purposes are to improve the socioeconomic status of members, reduce the level of poverty by enabling members to achieve their financial goals while positively impacting the wider community and improve their quality of life (Shamsuddin et al, 2018; Mbonigaba & Vanitha, 2016).

Cooperative Credit Unions are the most important part of the economy of rural communities, which are characterised by individuals with only a few properties and can have many vegetation and beasts in their possession, hence, many contemplate rural communities as farmlands (Dasgupta et al, 2015). Recently, there has been a growing focus on processes to engage more cooperatives, especially cooperative credit unions, toward financial change or transformation (Novkovic & Sunlesa, 2023; Qiong, 2014; Core et al, 2024). This focus is driven by the potential of financial change (financial deepening, financial service quality and financial literacy) to spur the performance of cooperatives (financial, non-financial and subjective performances) (Shamsuddin et al., 2018; Smith, 2016, Safiyuddin et al, 2021). South East, Nigeria, with its rich cultural and societal fabric, presents an uncommon context for assessing the effect of financial change on the performance of Cooperative Credit Unions (CCUs) (Onah et al, 2024; Ogbodo et al, 2020; Chukwuma-Umeh et al, 2022).

These CCUs are often faced with challenges of ideology, undercapitalization, credibility and management (Musa, Muhammed & Gajibo, 2023; Juma & Maseko, 2022). Most times, a lack of programmes to stimulate increased performance results (profitability, productivity, members' satisfaction, etc.) and participation is missing/not in existence. The management committees do not keep a balance between business efficiency (financial knowledge, financial deepening and financial service quality) and democracy.

The inflationary nature of the Nigerian economy tends to exacerbate the CCUs in rural communities with a weak economic base. A need arises for survival that will induce performance through a thoughtful financial change. Today in Nigeria, over 88.4 million people live at the poverty threshold of 1.90 U.S. dollars a day, with an inequality of wealth distribution of 35.1, while youth unemployment stood at 5.84% (Sasu, 2023; O'Neill, 2024). The fate of the finances of rural communities in the study area is hanging, moreso with ethnic agitations and a 10% poverty index (Emewu, 2023).

While existing literature underscores a positive relationship between financial change and the performance of Cooperative Credit Unions, there is a significant gap in understanding how these relationships manifest in the rural communities of South East, Nigeria (Izekor & Alufohai, 2010; Birchall, 2003; Safiyuddin et al,2021). Existing research often indicates a weak connection between financial change and the performance of Cooperative Credit Unions (Kipai et al, 2022; Auka & Mwangi 2013) and the interactions between these constructs and membership size dynamics have not yet been effectively addressed in the rural communities of SouthEast, Nigeria, hence the need for this study to broadly financial change and performance of CCUs in Rural Communities of South East, Nigeria. The specific objectives are to:

1. ascertain the effect of financial deepening on the return on equity (ROE) of Cooperative Credit unions in rural communities.
2. explore the effect of financial service quality on employee size of the Cooperative Credit Unions in rural communities.
3. determine the effect of financial literacy on members' satisfaction with the Cooperative Credit Unions in rural communities.

Conceptual and Theoretical Background

Financial Change

Financial change involves finding strategic initiatives aimed at redefining the finance function to align with the firm's objectives. Financial change refers to the development and adoption of new financial products, services, or processes that improve the way financial transactions, accumulations, knowledge and services are conducted (Monday, Dopemu & Ademola 2024; Adiletal, 2020). Financial change is a process that begins with perceived financial opportunity, that transfers into new capabilities and delivers the type and near-time insights demanded by the business (Donnelly, 2023). Understanding a financial change is a good step in enhancing and accelerating the financial journey, which culminates in developing the service-delivery model and clarifying the mode of finance in driving strategic business imperatives(KPMG, 2018).

Financial change aims to help organisations like cooperatives improve the efficiency and effectiveness of their financial operations, which can lead to increased profitability, enhanced services, improved savings and much more. It can also help organisations better understand and manage their financial performance which can inform decision-making and strategy (Gacheru & Muturi, 2018; Millennium Consulting, undated; Moodley & Bayat, 2017; Donnelly, 2023). Financial change leads to the formation of new initiatives that aim to address a wide range of financial challenges which efficiently create both economic and social value.

Cooperative Organisation Performance

Organisational performance may be measured in terms of multiple objectives of profitability, employee satisfaction, productivity or efficiency of the firm (Agbasimalo, 2021; Juma & Maseko, 2022). The term organisation performance describes the outcomes or achievements, whether negative or positive, arising out of the activities carried out by an organisation, which is an important key for success (Shamsuddin et al, 2018; Kipai, Gudda& George, 2022). Cooperative organisation performance refers to the cornerstone of cooperative business practices which is the evaluation of the achievement of cooperative goals and sets the scope and direction of possible improvement outcomes and value creation (Tudose & Avasilicai, 2020; Zareie et al, 2024).

Extant literature concerning the performance of cooperatives shows that there exists the debatable question of performance measurement. The usage of financial ratios, mostly based upon efficiency measures (profit/financial resources), does not correspond adequately to the estimate of cooperative performance. This is a result of the specific double commitment of cooperative members, as owners and workers in the cooperatives, remuneration as workers and value creation as owners (Waiganjo, Mukulu & Kahiri, 2012; Lious-Antonine, Jean-Pierre & Mario, 2011).

Shamsuddin et al (2018) presuppose that the indicators for Cooperative Performance measurement consist of financial and non-financial indicators. Financial indicators offer information on the financial status, which helps managers in decision-making to improve financial performance. Non-financial indicators reflect the cooperative level of employees' business operations in terms of staff profile, community investment, members' satisfaction and environment (Seklev & Debarliev, 2012). Cooperative members have more diverse interests than shareholders in investment-owned forms (IOFs).

Rural Communities

Rural communities are a longitudinal classification related to definite arrangements of human activity, although such relationships are subject to incessant modification. In rural communities, residents own a range of income sources and careers, of which farming and taking advantage of natural resources have privileged, but not essentially principal allocations (Ojiagu, 2022; Dasgupta et al, 2015).

A rural community refers to a group of people with a common characteristic living together in a village and can be classified as rural based on the criteria of lower population density, less social differentiation, less social and spatial mobility and a slow rate of social change. Agriculture is the major occupation of the rural people (Chiya & Mudau, 2023). An essential advantage of a rural community is a bit of natural surroundings; much to do with an expanse of lands, homogeneity of language, ethos and customs. These consist of a gap in the journey in order to arrive at residence (Emeh, Eluma & Uka, 2012).

Theoretical Framework

This study was guided by organisational size and structural perspective propounded by Kimberly (1976). The theory states that organisational performance can be measured based on its size. It describes the profitability and elements of performance in regard to firm size. In addition, the theory explains the organisation's efficiency in terms of management of transaction costs, financial change, members' satisfaction, and control costs. Organisation size can diversify operations in terms of a variety of products and services, and encourage necessary differentiation to meet members ' and clients' needs (Jones, 2012). Therefore, the membership size of cooperative credit unions can influence financial change (financial deepening, financial service quality and financial literacy to increase revenue that contributes to performance (financial /non-financial). However, the membership size may not guarantee more revenue due to latent factors of non-saving habits of members, lack of training for the executives and other personal and institutional challenges.

Financial Deepening and Return on Equity

Return on Equity (ROE) is one of the all-time favourites and perhaps the most widely used measure of corporate financial performance (Wet &Toit, 2007). The ultimate purpose of any profit-seeking organisation is to create economic value for its owners. A shareholder value is created when the equity returns of an organisation exceed the cost of the equity. Return on Equity can be described as the present value of all future cash flows, less the cost of debt. Shareholders' interests have been recognised as important, but the performance measures rarely show that this objective is achieved (Badruzaman, Fadillah & Abdurahman, 2022). Financial deepening is defined as the increased provision of financial services with a wider choice of service channels to all levels of the cooperative. (Nwosuet al, 2021). Financial deepening generally implies more liquidity-based premises that the more liquid money is accessible in a cooperative, the more the financial deepening and opportunities for continuous growth and expansion (Deema & Buthiena, 2016). The intersection of financial deepening and return on equity (ROE) has gained the attention of scholars and practitioners seeking to understand the dynamics that drive Cooperative Credit Unions towards impactful performance (Nwanna & Chinwudu, 2016).

Research is evident on the relationship between financial deepening and ROE to the performance of cooperative Credit Unions in rural communities, however, there is a question of generalizability of findings across communities in developing economies (Muffee & Neh, 2024; Simamora et al, 2024; Juma & Maseko, 2022). Studying the effect of financial deepening on the ROE of Cooperative Credit Union in the rural communities of South East, Nigeria is crucial (Onah et al, 2024), as it addresses a major gap in the literature and responds to the unique socio-cultural context of the region, where entrepreneurship thrives. Therefore, it is hypothesised that:
H_1 Financial deepening has an effect on ROE.

Financial Service Quality and Employee Size
Financial service quality is the manner in which financial services are delivered, and that remains critical in customers' or members of CCU's evaluation of service quality. It is noted that the achievement of customer/member satisfaction in financial service operations depends mainly on employees' orientation towards customer/member value (Bhatti et al, 2011). Customers tend to equate the quality of service by the employees with the actual service, premised on a comprehensive understanding of the total financial service concept (Kofler, 2003; Cheng& Lin, 2014). Extant literature suggests that building financial service-compatible skills, service transactional accuracy and competence depends on the number of employees who are available to render services. Employees are the backbone of any organisation and certain strengths they possess assist firms to operate more efficiently; they are inevitable to the success of all kinds of human organization (Tamunotonye & Ogaluzor, 2022; Nzewi, Onwuchekwa, Arachie, Okafor, 2018). Similarly, no organization can perform at peak levels unless each employee is committed to the organization’s objectives.

The stream of the literature shows that employee size has a positive effect on the organisation's service quality (Joshua et al., 2024; Yee et al., 2010; Tamunatonye & Ogaluzor, 2022) since the success of organisations, inclusive of cooperatives, depends on their human resources (Johansson, 2007). Few researchers, including Almechrzi and Singh (2016), Kights (2016), opposed the argument that financial service quality is not determined by employee size by the introduction of intrinsic value and partial positive relationship outcomes. Overall, this study is critical to advancing the understanding of the financial service quality foundations due to employee size. Therefore, the hypothesis is described as:
H_2: Financial service quality is positively related to employee size.

Financial Literacy and Member Satisfaction

Financial literacy is important to understand the basic economic and financial context needed to make savings and investment decisions (Nirmal & Bikram, 2015). A compelling body of evidence demonstrates a strong association between financial literacy and members' satisfaction (Cole & Fernando, 2008). Financial literacy (improved understanding of financial concepts and products) is the endmost pillar of a sound financial system, without which there are huge adverse consequences (Mwatondo & Wekesa, 2020). It has often been observed that the financial Literacy of cooperative executives is closely related to members' financial satisfaction (Madinga et al, 2022). Financial literacy impacts on cooperative members' satisfaction (Lappeman, et al, 2019). Members' satisfaction is the primary objective of cooperatives, and it is the degree of emotional satisfaction reaction to the difference between what is anticipated and what is received, regarding the fulfilment of some needs or some desires (Mohammed, 2019). Studies have shown that financial literacy helps to develop a strong sense of baseline to measure changes and enhance members' desires, which are consistent with the objectives of the Cooperative Credit Union. It provides social cues that can affect values, motivations and actions (Nirmal & Bikram, 2015).

Research consistently highlights how strongly financial literacy-financial to knowledge, skills, attitudes, financial behaviours and financial outcomes affect members' "a person's feelings of pleasure or disappointment from comparing a product's perceived outcome in relation to expectation. However, the role of financial literacy in shaping Cooperative Credit Union members is still ambiguous. Understanding the influence of financial literacy on members' satisfaction is crucial, as it can help develop strategies that are consistent with members' core self-help and values (Shah, 2012; Agbo & Onah, 2003; Mulyani et al, 2020). The hypothesis is described as:
H_3: Financial literacy positively affects members' satisfaction.

Conceptual Framework

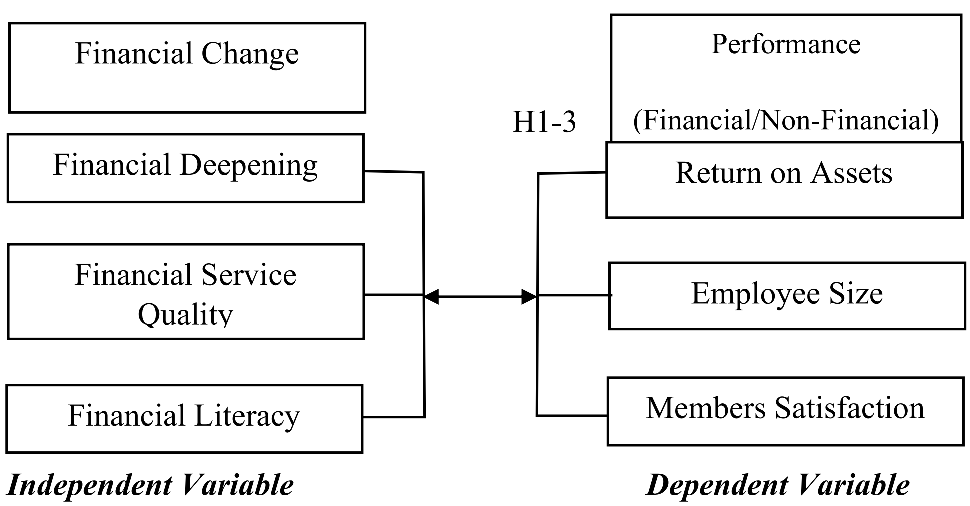

Figure 1: Research Framework

Based on the theory and proposed hypotheses, the research model presents the factors that influence the performance of Cooperative Credit Unions. Existing research highlights differences in financial change that underscore performance, suggesting that financial transformation may encounter unique influences on performance. Furthermore, financial deepening, which presupposes increased provision of financial services, may have different effects on the return of assets. Exploring the interactions between financial service quality, financial literacy on employee size and members' satisfaction while considering membership size dynamics offers an insight into the broader economic context that shapes CCUs toward sufficiency. Such a model is expected to contribute significantly to both theoretical advances and practical implications in promoting inter-cooperation inclusiveness in cooperative performance.

Empirical Reviews

Nwosu et al (2021) undertook financial deepening, financial system fragility and economic growth in Nigeria using a non-linear co-integrating ARDL model to assess the relationship between financial deepening, financial fragility and economic growth in Nigeria. Findings suggest the existence of a positive relationship between financial deepening and growth, but a non–linear relationship between financial system fragility and economic growth. This current study is appropriate in the discourse considering that a well-developed financial system is an important driver of economic growth due to its role in mobilising savings, boosting the efficiency of resource allocation and enhancing the diversification of risk, thereby stimulating sector growth, even the cooperative sector. This is based on the fact that deep and liquid financial systems tend to absorb business shocks even in rural communities.

Simamora et al (2023) studied factors affecting the financial performance of credit unions in Indonesia. Using secondary data from 270 credit unions found a positive and significant effect on return on Assets due to the company's ability to generate profit. Nevertheless, macroeconomic variables such as GRDP do not have a significant relationship and influence on the activity performance of the return on assets, the profitability ratio of credit unions. The current study centres on a factor of financial change (transformation) of the CCUS in the rural communities, which has been an important part of the rural economy.

Tonui and Otinga (2019) explored the effect of financial management practices on the financial performance of saving and credit cooperative societies in Kisumu County, Kenya. The study adopted a descriptive survey that targeted 151 senior and middle-level management staff from 19 SACCOS located in Kisumu County. The study used a structured questionnaire to collect primary data and inferential statistics for analysis. The study found that capital adequacy and liquidity management significantly influence the financial performance of SACCOS in the study county. The study recommended that SACCOS should adopt resilient liquidity management practices to enable boost its performance. The current study showcases major inadequacies of the CCUs in the rural communities, which is a minimum capital adequacy requirement, hence the "financial change" management practices is a is needed.

Monday et al (2024) ascertained financial innovation and financial performance of Nigeria's listed Deposit Money Banks: Evidence from Panel data modelling. Utilising secondary data from 2008 to 2023. Data were sourced from the bank's annual financial statements and the Nigeria Exchange Group Facebook. The nine banks with international authorisation were purposively selected for the study, with financial innovations in the banking sector of ATMs, POS, WEB, and MOB, for which ROA and ROE were used as measures of bank financial performance. The Feasible Generalised Least Squares (FGLS) regression technique was used for analysis. The findings indicated that financial innovation positively influenced the bank's financial performance. However, while ATM and POS Transactions impacted the banks' ROA and ROE, WEB and MOB had no significant impact on the financial performance of DMBs. The study is relevant as financial innovation is important to financial performance. The CCUs in the rural communities enable members to achieve their financial goals while impacting the wider community, but most times do not offer financial innovations for members' satisfaction, hence the difference in the current study, as DMBs and CCUs serve the same purpose to customers and members, respectively.

Cheng and Lin (2014) examined the effects of service quality on organisational performance. Utilising descriptive primary data from 233 participants from Deyi Chinese Food Company. Data were analysed with regression analysis and analysis of variance, the results showed a research conclusion that service quality presents partially positive effects on financial performance in organisations with (β=0.482, P=0.025) and (β=0.133, P=0.029) on corporate quality and interactive quality, respectively. The study proves that modern markets are service-oriented environments, and the single product or service provided by an enterprise can no longer attract customers. The variable of financial service quality that depends on employee size was added in the current study as a bolster of the performance of CCUs in rural communities.

Mwatondo and Wkesa (2020) analysed the effect of financial literacy on the financial growth of SACCOS in Kwale County. The study used a descriptive survey design, with a target population of 15282 members drawn from 80 SACCOS licensed and operating in Kwale County. Data were collected using a structured questionnaire from 397 out of 459 respondents selected using stratified random sampling. Data were analysed using descriptive and inferential statistics. Pearson's correlation test at a level of significance of alpha =.05 indicated that financial knowledge and financial training have a significant and weak positive correlation with the financial growth of SACCOS. The study brings to the fore the desire to improve financial growth. The present research work differs a little on the variable of financial literacy that affects members' satisfaction, which is the cardinal reason for cooperative existence.

Tamuotonye and Ogaluzor (2022) assessed the effect of employee size and employee cost on the financial performance of listed Deposit Money Banks (DMBs) in Nigeria. Samples were drawn from the listed DMBs in Nigeria from 2011 to 2020. The study applied the ex-post facto research design and used the filtering sampling technique, which yielded 12 DMBs for the study. Robust regression was used to test the hypotheses. The findings showed that employee size has a significant effect on the financial performance of the listed banks. This implies that an increase in the employee size will significantly reduce the financial performance of the listed DMBs measured in terms of return on equity of the DMBs. The result study is apt though with ramifications on employee size and performance of DMBs. The current study differs in research context, though CCUs are financial outfits, but could the financial literacy among the CCUs be affected by the employee size and knowledgeability of staff in the rural communities of the study area, which advances the performance of the CCUs.

Methodology

This study employed a survey research design because of the nature of the study which collected data from sampled respondents using a questionnaire, hence, making the survey design the most appropriate. The study is carried out in the Southeast region of Nigeria. The study's population comprised 264 management committees and 8945 members of randomly selected CCUs in South East Nigeria. Therefore, the total population of the study is 9209 management committee and members of CCUs. This study employed Krejcie and Morgan's 1970 sample size determination formula to arrive at a sample size of 156 for the management committee and 368 members. The total sample size for the study is, therefore, 524. The data for the research was sourced through primary source, and the form of primary source used is a questionnaire. To determine the number of questionnaires that were shared to each state in the southeast, Bowley's stratified allocation formula was utilised based on the population size of CCU in each of the states. The study deployed a direct collection method through face-to-face means for the collection of data. To ensure that the questionnaire measures what it ought to measure, it was subjected to both face and content validity. The study deployed the Cronbach's Alpha coefficient to measure the internal consistency of the questionnaire. This exercise produced a reliability statistic of 0.847, indicating a high reliability of the instrument. The data collected was analysed using a combination of descriptive and inferential statistics. Descriptive statistics are in the form of tables, frequencies, percentages and mean, while inferential statistics is a simple regression analysis and the hypotheses were tested at a 5% level of significance.

Data Presentation and Analysis

A total of 524 copies of the questionnaire were distributed to the participants of the study, in the end, 489 representing 93% of the distributed copies were collected, out of which 450 were used because 39 of the returned copies were either incompletely filled or mutilated beyond usage. Hence, only 86% of the distributed copies were used for the analysis.

Research Questions Statistics

Research Question One

How does financial deepening affect the return on equity of the Cooperative Credit Unions in Rural Communities?

Table 2: Distribution of responses for financial deepening on return on equity

S/N	Questionnaire Items	SA (5)	A (4)	UD (3)	D (2)	SD (1)	Mean	Verdict
	Financial Deepening							
1	My cooperative society has enough cash for quick investments when necessary.	60	75	57	169	89	2.66	Reject
2	I have easy access to various financial services [e.g., savings accounts and loans] through my credit union.	89	181	10	100	70	3.26	Accept
3	My credit union provides sufficient investment opportunities that meet my financial goals.	67	121	23	120	119	2.79	Reject
4	I actively engage in financial planning with the assistance of my credit union.	90	81	-	74	205	2.50	Reject
	Return on Equity							
5	I believe my credit union effectively uses member contributions like mine to generate profits	34	129	10	90	187	2.41	Reject
6	I am satisfied with how profits are reinvested to grow my equity in the credit union.	-	89	42	120	199	2.05	Reject
7	I receive satisfactory returns (e.g., dividends) on my equity contributions.	-	58	19	179	194	1.87	Reject
8	The financial performance of my credit union makes me feel that my equity is increasing annually.	12	70	49	150	169	2.12	Reject

Source: Field Survey, 2024

Table 2 indicates the distribution of responses for financial deepening on return on equity from the studied CCUs in rural communities in South East Nigeria. The analysis here is based on mean, with an acceptance threshold of 3, meaning any questionnaire with a mean of 3 and above should be accepted as being applicable or happening in the CCUs in the rural communities, while any with a mean of less than 3 should be rejected as not being true. From the mean as seen in Table 3, it shows that only questionnaire item 2 (I have easy access to various financial services [e.g., savings accounts, loans] through my credit union) has a mean of above 3 and, therefore, accepted, while the rest have mean statistics that are less than 3 and therefore, rejected.

Research Question Two

To what extent does financial service quality affect the employee size of the Cooperative Credit Union in rural communities?

Table 3: Distribution of responses for financial services quality on employee size

S/N	Questionnaire Items	SA (5)	A (4)	UD (3)	D (2)	SD (1)	Mean	Verdict
	Financial Services Quality							
1	I am satisfied with the speed at which my financial transactions are processed by my credit union.	59	149	10	132	100	2.86	Reject
2	The staff at my credit union are knowledgeable and provide helpful financial advice.	69	120	23	108	130	2.76	Reject
3	My credit union offers a variety of services that meet my financial needs.	40	80	5	128	197	2.20	Reject
4	My credit union resolves my financial issues or concerns promptly and effectively.	110	180	-	130	30	3.26	Accept
	Employee Size							
5	I believe the number of employees in my credit union is sufficient to handle member needs efficiently.	56	120	39	137	98	2.77	Reject
6	My credit union's employee size allows for personalised attention to members.	-	34	56	170	190	1.85	Reject
7	I feel that the employees in my cooperative are not overburdened, which enhances the quality of service delivery.	19	78	110	89	154	2.38	Reject
8	The employee size in my credit union contributes to the overall effectiveness of its operations.	-	50	90	121	189	2.00	Reject

Source: Field Survey, 2024

Table 3 shows the distribution of responses for financial services quality on employee size from the studied Cooperative Credit Union in the rural communities in South East Nigeria. The analysis here is also based on mean figures, with an acceptance threshold of 3 for questionnaire items with a mean of 3 and above and rejection for those with a mean of less than 3. From the mean as shown in Table 3, it reveals that only questionnaire item 4 (my credit union resolves my financial issues or concerns promptly and effectively) has a mean of above 3 and, hence, accepted, while the rest have mean figures that are less than 3 and, therefore, rejected.

Research Question Three

To what extent does financial literacy help to build members' satisfaction with the Cooperative Credit Unions in rural communities?

Table 4: Distribution of responses for financial literacy on member satisfaction

S/N	Questionnaire Items	SA (5)	A (4)	UD (3)	D (2)	SD (1)	Mean	Verdict
	Financial Literacy							
1	I understand the financial services and products offered by my credit union.	19	132	12	110	177	2.35	Reject
2	My credit union provides me with financial education to make informed decisions.	80	114	-	130	126	2.76	Reject
3	I can confidently manage my savings and investments with the knowledge gained from my credit union.	-	57	32	185	176	1.93	Reject
4	I am aware of the risks and benefits associated with the financial services I use because of my credit cooperative society.	-	89	12	110	239	1.89	Reject
	Member Satisfaction							
5	I am satisfied with the overall quality of services provided by my credit union.	12	104	17	187	130	2.07	Reject
6	The financial services from my credit union meet my personal or business needs.	50	57	50	100	193	2.27	Reject
7	I feel valued and respected as a member of my credit union.	119	139	60	100	32	3.47	Reject
8	I would recommend my credit union to others based on my satisfaction with its services.	45	70	19	99	217	2.17	Reject

Source: Field Survey, 2024

Table 4 reveals the distribution of responses for financial literacy on member satisfaction from the studied Cooperative Credit Union in the rural communities in South East Nigeria. The analysis here is also based on mean figures, with an acceptance threshold of 3 for questionnaire items with a mean of 3 and above and rejection for those with a mean of less than 3. From the mean as shown in Table 3, it indicates that all mean figures of the questionnaire items are less than 3 and, therefore, are all rejected as not being true or applicable in their Cooperative Credit Unions.

Test of Hypotheses

Hypothesis One

H_1: Financial deepening has an effect on ROE

Table 5: Regression Result for Hypothesis One

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	t	Sig.
1	.968[a]	.936	.936	1.159	6569.276	81.051	.000

a. Predictors: (Constant), FINDE
Source: Field Survey, 2024

Table 5 is a summary Table for the test of hypothesis one which states that financial deepening has an effect on ROE. From the Table, the R is .968, showing a 97% relationship, R-Square is equal to .936, indicating that a 94% change in ROE is accounted for by changes in the financial deepening.

The F statistics is 6569.276, the t is 81.051 while the p-value as represented by Sig on the Table is .000. Going by all this, given that the p-value is lesser than the 5% level of significance used, the alternate hypothesis is, therefore, accepted and it is stated that financial deepening has a statistically significant effect on ROE in the studied cooperative credit unions.

Hypothesis Two

H_2: Financial service quality is positively related to employee size.

Table 6: Regression Result for Hypothesis Two

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	t	Sig.
1	.981[a]	.963	.963	.851	11629.339	107.839	.000

a. Predictors: (Constant), FSQ
Source: Field Survey, 2024

Table 6 is a summary Table for the test of hypothesis two which states that financial service quality is positively related to employee size. From the Table, the R is .981, showing a 98% relationship, R-Square is equal to .963, indicating that a 96% change in employee size is accounted for by changes in the financial service quality. The F statistics is 11629.339, the t is 107.839 and the p-value is .000. Given that the p-value is lesser than the .05 level of significance adopted in the study, the alternate hypothesis is, therefore, accepted and it is stated that financial service quality is positively and statistically related to employee size in the studied cooperative credit unions.

Hypothesis Three

H_3: Financial literacy positively affects members' satisfaction.

Table 7: Regression Result for Hypothesis Three

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	t	Sig.
1	.975[a]	.951	.951	1.153	8758.118	93.585	.000

a. Predictors: (Constant), FINLIT
Source: Field Survey, 2024

Table 7 is a summary Table for the test of hypothesis three which states that financial literacy positively affects members' satisfaction. From the Table, the R is .975, showing a 98% relationship, and R-Square is equal to .951, indicating that a 95% change in members' satisfaction is as a result of changes in financial literacy. The F statistics is 8758.118, the t is 93.585 and the p-value is .000. Given that the p-value is lesser than the .05 level of significance adopted in the study, the alternate hypothesis is, therefore, accepted and it is stated that financial literacy positively and statistically affects members' satisfaction in the studied cooperative credit unions.

Discussion of Findings

The data collected for the study were tested using appropriate test techniques, and the findings are presented in Tables and explained below the Tables. However, for the purpose of a more detailed discussion and to compare the findings with earlier findings, the study presents thus:

From the first test of the hypothesis, the study shows that financial deepening has a statistically significant effect on ROE in the studied cooperative credit unions. That is to say that the more cooperative credit unions in the South East region of Nigeria deepen their finances by making their finance more liquid and ready for opportunities for investments, the more the return on equity. This is because more liquid capital makes for capitalisation on market oppurnuties which will create room for making more profit, which will give more value to the equity holding of members. This finding corroborates that of earlier researchers like Nwosu et al (2021) who undertook a study on financial deepening, financial system fragility and economic growth in Nigeria. Their findings showed the existence of a positive relationship between financial deepening and growth, and growth could be in the form of ROE. Similarly, Simamora et al (2023) who examined the factors affecting the financial performance of credit unions in Indonesia and found a positive and significant effect on return on Assets due to the company's ability to generate profit, and profit could come as a result of financial deepening. Also, Tonui and Otinga (2019), who explored the effect of financial management practices on financial performance, indicated that capital adequacy and liquidity management, which is the hallmark of financial deepening, significantly influenced the financial performance of SACCOS in the studied County.

The second hypothesis tested in the study showed that financial service quality is positively and statistically related to employee size in the studied cooperative credit unions. This indicates that financial service quality has a way of increasing employee size, which will ultimately improve the performance of the cooperative societies. This finding aligns with that of Monday et al (2024), who ascertained the relationship between financial innovation and financial performance. Financial innovativeness here could come from offering qualitative services to members and possibly customers of the studied cooperative credit unions. They found that financial innovation positively influenced the bank's financial performance. Also, Cheng and Lin (2014), who examined the effects of service quality on organisational performance showed that service quality presents partial positive effects on financial performance in organisations.

The third hypothesis tested using simple regression analysis revealed that financial literacy positively and statistically affects members' satisfaction in the studied cooperative credit unions. This goes to show that more financial literacy on the part of owners, managers and members of the studied cooperative credit unions will eventually lead to improved members' satisfaction because they will be in charge and in control of their finances, knowing how, when and when to deploy their finances for different purposes. This finding relates to the findings of Mwatondo and Wkesa (2020) who analyzed the effect of financial literacy on the financial growth of SACCOS in Kwale county and showed that financial knowledge, which is part of financial literacy and financial training has a significant and weak positive correlation with financial growth, which will go a long way in making the members more satisfied in their cooperative credit unions.

Conclusion

This research, titled Financial Change and performance of CCUs in Rural Communities of South East, Nigeria, has yielded significant insights into the essential elements affecting the success of CCUs. The results indicated that financial deepening significantly impacts return on equity (ROE), highlighting the critical role of liquidity and investment preparedness in augmenting equity value for members. The study also indicated a positive and statistically significant correlation between financial service quality and employee size. This discovery underscores the significance of qualitative financial services in facilitating organisational growth, including employee expansion, which can eventually improve the performance and sustainability of CCUs. Moreover, the study demonstrated that financial literacy has a favourable and statistically significant impact on members' satisfaction. This highlights the necessity of providing members, administrators, and owners with the financial acumen required to proficiently manage resources and make educated financial choices, hence enhancing general satisfaction and trust in the cooperative system. The findings together underscore the necessity for policies that prioritise financial deepening, service quality, and financial literacy to enhance the effectiveness and sustainability of CCUs in rural areas. It is hence concluded that financial change has a statistically significant effect on the performance of CCUs in rural communities of South East Nigeria.

Recommendations

Drawing from the findings of the study, the following recommendations are made:

a) Rural cooperative credit unions need to implement and refine financial deepening strategies, including optimising liquidity management and diversifying investment options. By sustaining a robust liquidity foundation, these unions may more effectively leverage market opportunities, enhance profitability, and augment return on equity (ROE) for their members.
b) Credit unions ought to prioritise enhancing the quality of their financial services through investments in members-centric strategies and new solutions. Improved service quality can result in heightened member satisfaction and organisational growth, including an increase in employee numbers, which will further enhance operational efficiency and sustainability.
c) To enhance member satisfaction, cooperative credit unions need to prioritise financial literacy programs. Providing training programs, workshops, and educational tools for members, managers, and staff that will provide stakeholders with the skills and knowledge necessary to make educated financial decisions, enhance resource allocation, and bolster their faith in the cooperative system.

References

Adil, M. H., Hatekar, N., & Sahoo, P. (2020). The impact of financial innovation on the money demand functions: An empirical verification in India. *The Journal of Applied Economic Research, 14*(1), 28–61. https://doi.org/10.1177/0973801019886479

Agbasimalo, E. O. (2021). Cultural diversity and performance of cooperative societies within tertiary institutions in Anambra State, Nigeria. *Unpublished MSc thesis*, Department of Cooperative Economics and Management, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka.

Agbo, F. U., & Onah, O. J. (2003). Economic analysis of farmers' access to the services of farmers' multipurpose cooperative societies (FMCS) in Enugu North Agricultural Zone of Enugu State, Nigeria. *International Journal of Agriculture, Science and Research (IJASR), 3*(2).

Al Mehrzi, N., & Singh, S. K. (2016). Competing through employee engagement: A proposed framework. *International Journal of Productivity and Performance Management, 65*(6), 831–843.

Auka, D. O., & Mwangi, J. K. (2013). Factors influencing SACCO members to seek services of other financial service providers in Kenya. *International Review of Management and Business Research, 2*(2).

Badruzaman, J., Fadillah, A. R., & Abdurrahman, F. (2022). Determining the effect of return on equity (ROE) on price earnings ratio (PER) and price to book value (PBV) in LQ45 companies, Indonesia. *WSEAS Transactions on Business and Economics.* https://doi.org/10.37394/23207.2022.19.141

Bhatti, M. I., Zafarullah, M., Hayat, M., Awan, K., & Bukhari, S. (2017). Employees' perspective of organisational service quality orientation: Evidence from the Islamic banking industry. *International Journal of Islamic and Middle Eastern Finance and Management.*

Birchall, J. (2003). *Rediscovering the cooperative advantage: Poverty reduction through self-help.* Cooperative Branch, International Labour Office, Geneva.

Chen, Y., & Zhang, Y. (2024). The impact of digital transformation on firms' financial performance: Evidence from China. *Industrial Management & Data Systems.* https://doi.org/10.1108/IMDS

Cheng, J. S., & Lin, Y. (2014). Effects of service on organisational performance. *Pakistan Journal of Statistics, 30*(6), 1131–1140.

Chiya, W. H., & Mudau, T. S. (2023). Successful pathways for the well-being of Black students. In *Educational strategies during COVID-19 lockdowns among Black students in low and middle-income countries* (Chapter 5). https://doi.org/10.4018/978-1-6684-7090-9.ch005

Chukwuma-Ume, N., Onah, O. G., Enete, A. A., Okoye, C. U., & Onyia, C. (2022). Assessment of the financial inclusion of farmers' cooperative societies in South East, Nigeria.

Cole, S., & Fernando, N. (2008). Assess the importance of financial literacy. *ADB Finance for the Poor, 9*(2).

Core, G. L., Antonucci, G., Venditti, M., & Gitto, A. (2024). Digital transformation and sustainability in cooperative enterprises: A literature review. *International Journal of Business Research Management (IJBRM), 15*(2).

Dasgupta, P., Morton, J. E., Dodiman, D., & Karapinar, B. (2015). Rural areas in climate change 2014: Impacts, adaptation, and vulnerability; Part A: Global and sectoral aspects. Cambridge University Press.

Deema, A. W., & Buthiena, K. A. (2016). Financial deepening and economic growth: The case of Jordan. *Journal of Accounting and Finance, 16*(6), 158–165.

Donnelly, S. (2023). What is finance transformation? Retrieved January 2, 2025, from https://financealliance.io/wha

Emeh, I. E., Eluma, I. J., & Uka, F. O. (2021). Rural community perspectives. *Interdisciplinary Journal of Contemporary Research in Business, 4*(5), 46–52.

Emewu, I. (2023). South East has lowest poverty ratio in Nigeria, while North East is worst. Retrieved from https://africachinapresscenter.org

Gacheru, J. W., & Muturi, W. (2018). Financial factors that influence the performance of cooperative societies in Juja Sub County in Kiambu, Kenya. *International Journal of Social Sciences and Information Technology, 4*(10).

Izekor, O. B., & Alufohai, G. O. (2010). Assessment of cooperative societies' effectiveness in agricultural credit delivery in Ikpoba Okha Local Government Area, Edo State, Nigeria. *African Journal of General Agriculture, 6*(3), 139–143.

Johansson, F. D. (2007). Human capital in service innovation strategy. *International Journal of Management and Marketing Research, 7*(1), 29–47.

Jones, R. (2012). Time to re-evaluate financial risk in GP commissioning. *British Journal of Healthcare Management, 18*(1), 39–48.

Joshua, A.K., Bryan, A., Salas, B., Jean Ivory, S., & Elmer, A. (2024). The relationship between employee roles and service quality. *South Asian Journal of Social Studies and Economics, 21*(5), 112–121.

Juma, M. L., & Maseko, F. E. (2022). Factors that affect financial performance of savings and credit co-operative societies during the COVID-19 pandemic in Dodoma Region. *European Journal of Accounting, Auditing and Financial Research, 10*(11), 104–124.

Kaplan, R., & Norton, D. P. (2006). *Alignment.* Massachusetts: Harvard Business School Publishing.

Kimberly, J. R. (1976). Organizational size and the structuralist perspective: A review, critique, and proposal. *Administrative Science Quarterly, 21,* 571–597. https://doi.org/10.2307/2391717

Kipai, E. S., Gudda, P., & George, R. (2022). Effect of membership size on financial performance of savings and credit cooperative societies in Narok County, Kenya. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 12*(4), 1–22.

Klynveld Peat Marwick Geordeler [KPMG]. (2018). Finance transformation insurance. Retrieved December 30, 2024, from https://www.kpmg.ch/fs

Krejcie, R. V., & Morgan, D. W. (1970) Determining sample size for research activities. Educ Psychol Meas.

Madinga, N. W., Maziriri, E. T., Chuchu, T., & Magoda, Z. (2022). An investigation of the impact of financial literacy and financial socialisation on financial satisfaction: Mediating role of financial risk attitude. *Global Journal of Emerging Market Economies.* https://doi.org/10.1177/09749101211070952

Mbonigaba, C., & Vanitha, N. (2016). Beyond credit: How cooperative management can transform rural economies. *International Journal of Interdisciplinary Research in Arts and Humanities, 1*(1), 209–214.

Mehmet, S., Murat, C., Mustafa, E. C., & Deniz, G. (2015). Groups and their effects in organizations. *European Scientific Journal, 11*(36).

Millennium Consulting. (n.d.). Finance transformation change management guide. Retrieved January 2, 2025, from https://www.millenniumconsulting.com

Mitiri, J. (2014). Factors influencing financial performance of savings and credit cooperative societies: A case of Capital SACCO, Meru Country. Unpublished MSc. Project, University of Nairobi.

Mohammed, A. A. (2019). Members' satisfaction on service provided by selected cooperative business enterprises (CBEs) in Bedeno Woreda, East Hararghe Zone, Oromia Region. *Journal of Marketing and Consumer Research, 63.*

Monday, J. U., Dopemu, O. S., & Ademola, B. I. (2024). Financial innovation and financial performance of Nigerian listed deposit money banks: Evidence from panel data modelling. *European Journal of Accounting, Auditing and Finance Research, 12*(9), 32–52.

Moodley, M., & Bayat, M. S. (2017). The impact of financial transformation on the role and choice of the chief financial officer. *Global Journal of Economic and Business, 3*(3), 283–300.

Morris, G. D., McKay, S., & Oates, A. (2009). *Finance directors handbook.* Oxford: CIMA Publishing.

Muffee, V. W., & Neh, A. B. (2024). The determinants of non-performing loans and their effects on the performance of cooperative credit unions in Bamenda. *International Journal of Education, Business and Economics Research, 4*(2), 477–532.

Mulyani, S. R., Sari, V. N., & Widian, S. M. (2020). Model of employee motivation and cooperative performance. *Utopian Praxis Latinoamericana, 25*(Special Issue 1). Universidad del Zulia, Venezuela.

Murinde, V., Rizopoulos, E., & Zachariadis, M. (2022). The impact of fintech revolution on the future of banking: Opportunities and risks. *International Review of Financial Analysis, 81,* 102–103.

Musa, H., Mohammed, B. K., & Gajibo, M. A. (2023). Assessing the impact of cooperative societies on the financial welfare of Maiduguri residents. *International Journal of Social Sciences and Humanities, 2*(6), 170–178.

Mwatondo, H. J., & Wekesa, M. W. (2020). Effect of financial literacy on financial growth in SACCOs in Kwale County. *The Strategic Journal of Business and Change Management, 7*(4), 697–713.

Nirmal, A., & Bikram, P. S. (2015). Financial literature and cooperative sustainability: A study among the executive members of the cooperatives. *International Journal of Community and Cooperative Studies, 3*(3), 17–29.

Nolop, B. (2012). *The essential CFO: A corporate finance playbook.* Hoboken: John Wiley & Sons, Inc.

Novkovic, S., & Simiesa, D. (2023). Measuring transformation impact of cooperatives. In *Humanistic governance in democratic organization.* https://doi.org/10.1007/978-3-031-17403-2_14

Nwanna, I. O., & Chinwudu, C. F. (2016). The effect of financial deepening on economic growth in Nigeria (1985–2014). *IOSR Journal of Economics and Finance, 7*(4), 11–28.

Nwosu, C. P., Itodo, I. A., & Ogbonnaya-Orji, N. (2021). Financial deepening, financial system fragility, and economic growth in Nigeria. *Central Bank Economic and Financial Review, 59*(1).

Nzewi, N. H., Onwuchekwa, F. C. Arachie, A., & Okafor, R. N. (2018). Diversity Management and Employee Performance in Plastic Manufacturing Firms in Anambra State. *Journal of Business and Management (IOSR-JBM), 20*(6), 39-46.

Nzewi, H. N., Chiekezie, O. M., Obi, E., Agu, E. R., & Arachie, A. E. (2017). Job Enrichment and Employee Commitment in Selected Brewing Firms in Anambra State. Saudi Journal of Business and Management Studies, 3(4A), 330-337.

O'Neil, A. (2024). Youth unemployment rate in Nigeria in 2023. *Statista.com.*

Ogbodo, A. J., Onyeze, C. N., & Ochiaka, D. I. (2020). Financing of cooperative societies and its effects on cooperative performance in South East Nigeria. *Advance Journal of Management and Social Sciences, 4*(3), May–June.

Ojiagu, N. C. (2022). Rural community transformation: Cooperative approach. In Ewuim, N. C. (Ed.), *Public administration in a pandemic era: Emerging issues in Nigeria*.

Onah, O. C., Ume, C. O., Nwangwu, K. N., Oneje, E. E., & Oranu, C. O. (2024). Assessment of the operational performance of farmers' cooperative societies in South East, Nigeria. *American International Journal of Agricultural Studies, 9*(1), 17–26. https://doi.org/10.46545/aijas.v9i/.314

Qiong, F. (2014). The transformation of the cooperative financial mode in the countryside of China and the future choice. *SHS Web of Conferences, 6,* 02009. https://doi.org/10.105/shsconf/2014062009

Safiyuddin, F. S., Wahab, N. A., & Maamor, S. (2021). Analysis of the financial performance of credit cooperatives in Malaysia. *Journal of Accounting Research Organization and Economics.* https://doi.org/10.24815/jaroe.412.20548

Sasu, D. D. (2023). Number of people living in extreme poverty in Nigeria from 2016–2025. *Statista.com.*

Seklev, B., & Debarliev, S. (2012). Strategic planning effectiveness: Company analysis of the Macedonia context. *Economic and Business Review, 14*(1), 63–93.

Shamsuddin, Z., Malmood, S., Ghazali, P. L., Salleh, F., & Nawi, F. A. M. (2018). Indicators for cooperative performance measurement. *International Journal of Academic Research in Business & Social Sciences, 8*(12), 557–585.

Simamora, D. H., Makaliwe, W. A., Mardanugraha, E., & Murad, Z. K. N. (2023). Factors affecting the financial performance of credit unions in Indonesia. *Indonesia Journal of Multidisciplinary Science.*

Tamunotonye, P. G., & Ogaluzor, O. I. (2022). Assessing the effect of employee size and employee cost on the financial performance of listed deposit money banks in Nigeria. *African Journal of Business and Economics Development, 2*(2).

Tudose, B. M., Rusu, S., & Avasilicai, S. (2022). Financial performance determinants and interdependencies between measurement indicators. *Business Management and Economics Engineering, 20*(1), 119–138.

Ugwu, K. E., Awah, S., Duru, E., & Onyeanwu, C. C. (2022). Digital transformation and operational performance of Nigeria's financial sector. *International Journal of Innovative Science, Engineering & Technology, 9*(2).

Waiganjo, E. W., Mukulu, E., & Kahiri, J. (2012). Relationship between strategic human resource management and firm performance of Kenya's corporate organizations. *International Journal of Humanities and Social Sciences, 2*(10), 62–70.

Wet, J. H. V. H., & Toit, E. du. (2007). Return on equity: A popular, but flawed measure of corporate financial performance. *South African Journal of Business Management, 38*(1).

Yee, R. W. Y., Yeung, A. C. L., & Cheng, T. C. E. (2010). An empirical study of employee loyalty, service quality, and performance in the service industry. *International Journal of Production Economics, 124*(1), 109–120.

Zareie, M., Attig, N., Ghoul, S. El., & Fooladi, I. (2024). Firm digital transformation and corporate performance: The moderating effect of organizational capital. *Finance Research Letters, 61,* 105032.